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TALBOT COUNTY DEPARTMENT OF PERMITS & INSPECTIONS 215 Bay Street, Suite 2

Easton, Maryland 21601

HVACR PERMIT APPLICATION 410-770-6840

DATE	BUILDING PERMIT NO	HVACR PERMIT NO		
I hereby apply for permission	n to do the work, as listed, on the property de	scribed as follows, for which I tender he	rewith the required fee.	
		at		
(type of con	struction)	(location address) SUMMARY OF HVAC WORK AND CHARGES		
<u>Prop</u>	erty Owner			
Name	1	Residential	Charges	
Owners Mailing		First unit	\$60.00 \$	
		For each additional unit	\$8.00 \$	
ŧ		Modular unit	\$60.00 \$	
Owners		Change unit	\$35.00 \$	
Phone #		Total	\$	
Description of work		Non Residential		
	5 a	First unit	\$60.00 \$	
		For each additional	\$8.00 \$	
		Change unit	\$35.00 \$	
		Total	\$	
O	4 4			
Con	<u>tractor</u>	Reinspection Fee	\$ 40.00	
Name		Phone#		
Street	City	State	Zip	
HVAC License#	Expiration Date	County License #_		
Print Name				
License Holder's Signatur	re	Date		
	HE OWNER TO DO THE WORK HEREIN DESC OT COUNTY MECHANICAL CODE.	RIBED, AND IN THE EXECUTION THEF	REOF, I AGREE TO ABIDE BY	

Issued by___



Talbot County Office of Permits & Inspections 215 Bay Street, Suite 3

Easton, Maryland 21601

Phone: 410-770-6840 Fax 410-770-6843

Checklist for HVAC Permit

This form must be removed before completing the (attached) carbon application.

$\overline{\mathbf{A}}$	pplicant's Signature			Date		
I a	acknowledge that there e date the Permit is iss	e is a five (5) sued and H p	business ermits wil	day period between the day the Permit is applied for and ll not be issued prior to review.		
	If project is located in required; all equipme	n a special flent and ducty	ood hazar vork is to	d area, compliance with Chapter 70, <i>Floodplain Management Ordinance</i> is be installed above the flood protection elevation (FPE).		
	(c) The value of HV	AC construc	tion is \$ _			
			_	ired. This office does not accept cash. m five (5) day review period prior to issuance.		
٥.				Ves No (See Reverse) Description of the second seco		
2	To the inh leasted in 1	7117	A Finad	17 V.9		
	If no or N/A, please	explain:				
	Yes	No _	N/A	T-Stat locations marked on plans		
	Yes	No _	N/A	Dryer, bath and range venting drawn on plans		
	Yes	No _	N/A	Correct orientation of structures		
	Yes	No _	N/A	Equipment make and model numbers		
	Yes	No _	N/A	Long form load calc (with room by room CFM)		
	Yes	No _	N/A	Duct design (supply and return sizes marked on plans)		
	Yes	No _	N/A	Legible duct design		
2.	Do you have all the information needed for this permit?					
	Yes	No I	f yes, than	a double permit fee is required.		
1.	Has the HVAC work	begun?				

NOTICE FLOOD ZONE FEES

For projects located in a special flood hazard area, a \$35.00 Flood Review Fee is required. This charge will be collected with all applicable fees at time of Application submittal for all Building Permits, Zoning Certificates, Gas G-Permits and HVACR H-Permits

Talbot County Permits & Inspections 215 Bay Street, Suite 3 Easton, MD 21601 410-770-6840



HVACR INSPECTIONS (amended 10/20/14)

HVACR permits must be obtained prior to commencement of work and it will be the Master HVACR's responsibility to make application to the Permits and Inspection Department for all HVACR permits and call for all required inspections.

Design and install of systems (equipment and ductwork) per

2003 IMC (International Mechanical Code)

2003 IRC (International Residential Code Chapters 12 Thru 24)

2012 IECC (International Energy Conservation Code)

2012 IRC (International Residential Code) – if applicable

2012 IBC (International Building Code) – if applicable

Long form Manual J calculations for proposed work (due at time of application) to include an equipment summary including manufacturer and model number.

Full duct design to scale at time of permit application. Have affixed to them the name and license number of the Maryland HVACR master, HVACR master restricted licensed for the system, or Maryland licensed professional engineer or architect.

HVACR rough-in - The dwelling shall be weather tight prior to receiving a HVACR rough-in inspection.

Crawlspace and underfloor spaces containing appliances requiring access shall be provided with an unobstructed passageway large enough to remove the largest appliance, but not less than 30 inches high and 22 inches wide, nor more than 20 feet in length when measured along the centerline of the passageway from the opening to the appliance. A level service space at least 30 inches deep and 30 inches wide shall be present at the front or service side of the appliance.

The Talbot County Electrical Board, per the current National Electric Code, requires that electrical installation, performed in conjunction with HVAC installs and equipment change-outs, requires an electrical inspection and work must be performed by a licensed electrician. The Board further agreed that the HVAC permits issued for new installs and change-outs should reflect a permit number that should be made available to the electrical contractor, by the HVAC contractor, for the electrical inspection application. This office must receive confirmation of Final electrical inspection approval prior to our performing final HVAC inspection.

Rough In Inspection: The installation of all parts of the HVACR system which can be completed prior to the installation of grilles, registers, thermostats and outdoor unit.

- 1. Metal ducts shall be supported by 0.5 inch wide 18 gauge metal straps or 12 gauge galvanized wire at intervals not exceeding 10 feet or by other approved means.
- 2. Non-metallic ducts shall be supported in accordance with the manufacturer's installation instructions.
- 3. Supply boots in unconditioned space are to be insulated to prevent accumulation of condensation.
- 4. Nail plates (any penetration through 2 x4 plates less than 1.5 inches from edge. Nail plates shall extend at least two inches below top plates and two inches above sole plates.)
- 5. Heating and cooling equipment shall be located with respect to building construction and other equipment to permit maintenance, servicing and replacement.
- 6. Copper line set run through floors to outdoor unit location.
- 7. Drain pan under equipment installed where damage to building components will occur must be minimum 1.5 in. in depth and not less than 3 in.larger than the unit's width and length.
- 9. A minimum of thirty inches of working space shall be provided in front of the control side to service an appliance.
- 10. Cutting, notching or drilling structural member is to be in accordance with the 2003 International Residential Code.

FINAL INSPECTION

The following shall be completed prior to a Final Inspection:

- 1. Registers and grilles in place.
- 2. Thermostat set and operational.
- 3. All outdoor equipment set and operational.
- *****Any conditions preventing inspection completion will result in an incomplete/disapproved inspection and a \$40.00 re-inspection fee!
- *****HVACR Master is to have copy of <u>HVACR Permit</u> on job site, located in a visible location, or inspection(s) will not be performed.

Equipment change-outs and/or new ductwork require a Permit with load calculation and duct design to scale, and a Final Inspection at time of completion of work.

The Talbot County Office of Permits and Inspections performs all HVAC inspections in the unincorporated areas of Talbot County. This <u>does not</u> include the towns of: Easton, St. Michaels, Trappe, Oxford and Queen Anne. Check with your local building department for licensing and inspection information.

Exceptions (incorporated towns):

Easton

MDIA 410-822-8300

Oxford

410-226-5122

St. Michaels

MDIA 410-822-8300

Trappe and Queen Anne have no inspections at this time

Notice

Effective July 1, 2012. The 2012 International Energy Conservation Code goes into effect on any Building permits applied for after that date, also any HVAC Permits attached to that Building Permit. On any HVAC Permit that is not associated with a Building Permit this July 1, 2012 date also applies. Please read The 2012 International Energy Code and apply the new changes to your installation.

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TALBOT COUNTY DEPARTMENT OF PERMITS & INSPECTIONS

215 BAY STREET SUITE 3

EASTON, MARYLAND 21601

PHONE: 410-770-6840 www.talbotcountymd.gov

FAX: 410-770-8043 TTY: 410-822-8735

NOTICE

Date:

August 29, 2012

To:

HVAC Contractors

From:

Talbot County Permits & Inspections

Subject:

HVAC change outs – equipment and/or duct systems

Talbot County requires HVAC permits be pulled for system change outs for system change outs and new ductwork. The permit fee is \$35.00 for the first unit and \$8 for each system thereafter.

A load calc is required upon submission of permit application if the homeowner has lived in the residence for less than 2 years. If the homeowner has lived in the residence for more than 2 years, the HVAC contractor must draw up a letter for the homeowner to sign stating that they are happy with the performance of their current system (see example).

Upon completion of the HVAC change out, please contact Middle Department Inspection Agency (MDIA) at 410-822-8300 to schedule the final electric inspection (will need HVAC permit number). Once the final electrical inspection has been completed, please call our office to schedule the final inspection on the system change out.

If you have any questions, please contact Larry Schuyler at 410-770-6840.

Thank you for your cooperation.

Sincerely,
Talbot County Permits & Inspections

MAIN STREET HEATING AND AIR 111 MAIN STREET ANYWHERE, USA 1111

PHONE: 555-555-1212 FAX: 555-555-1213

Customer Name:			
Date of Survey:			
Address:	_State:	Zip:	
Home Phone: Work Phone:		nderfactor of the	
Cell Phone:			
Current Equipment Model:	Size:		
How long have you lived here?		Years	
Has your current system performed satisfactorily?		Yes/No (please circle one)	
Are there any rooms that are too cold?	Y	es/No (please circle one)	
Are there any rooms that are too hot?	Y	es/No (please circle one)	
Are you satisfied with the current location of this equipment?	Y	es/No (please circle one)	
	Data		
Main Street Heating and Air Consultant	Date		
Customor	Date		

NOTICE

HERE ARE SOME OF THE CHANGES IN THE 2012 INTERNATIONAL ENERGY CONSERVATION CODE THAT WILL AFFECT HVAC INSTALLATIONS

EFFECTIVE JULY 2, 2012

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N1101.11 (R302.1) Interior design conditions. The interior design temperatures used for heating and cooling load calculations shall be a maximum of 72°F (22°C) for heating and minimum of 75°F (24°C) for cooling.

N1101.12 (R303.1) Identification. Materials, systems and equipment shall be identified in a manner that will allow a determination of compliance with the applicable provisions of this code.

N1101.16 (R401.3) Certificate (Mandatory). A permanent certificate shall be completed and posted on or in the electrical distribution panel by the builder or registered design professional. The certificate shall not cover or obstruct the visibility of the circuit directory label, service disconnect label or other required labels. The certificate shall list the predominant R-values of insulation installed in or on ceiling/roof, walls, foundation (slab, basement wall, crawl space wall and/or floor) and ducts outside conditioned spaces; U-factors for fenestration and the solar heat gain coefficient (SHGC) of fenestration, and the results from any required duct system and building envelope air leakage testing done on the building. Where there is more than one value for each component, the certificate shall list the value covering the largest area. The certificate shall list the types and efficiencies of heating, cooling and service water heating equipment. Where a gas-fired unvented room heater, electric furnace, or baseboard electric heater is installed in the residence, the certificate shall list "gas-fired unvented room heater," "electric furnace" or "baseboard electric heater," as appropriate. An efficiency shall not be disted for gas-fired unvented room heaters, electric furnaces or electric baseboard heaters.

N1103.1 (R403.1) Controls (Mandatory). At least one thermostat shall be provided for each separate heating and cooling system.

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N1103.1.1 (R403.1.1) Programmable thermostat. Where the primary heating system is a forced-air furnace, at least one thermostat per dwelling unit shall be capable of controlling the heating and cooling system on a daily schedule to maintain different temperature set points at different times of the day. This thermostat shall include the capability to set back or temporarily operate the system to maintain zone temperatures down to 55°F (13°C) or up to 85°F (29°C). The thermostat shall initially be programmed with a heating temperature set point no higher than 70°F (21°C) and a cooling temperature set point no lower than 78°F (26°C).

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N1103.1.2 (R403.1.2) Heat pump supplementary heat (Mandatory). Heat pumps having supplementary electric-resistance heat shall have controls that, except during

defrost, prevent supplemental heat operation when the heat pump compressor can meet the heating load.

N1103.2 (R403.2) Ducts. Ducts and air handlers shall be in accordance with Sections N1103.2.1 through N1103.2.3.

N1103.2.1 (R403.2.1) Insulation (Prescriptive). Supply ducts in attics shall be insulated to a minimum of R=8. All other ducts shall be insulated to a minimum of R=6.

Exception: Ducts or portions thereof located completely inside the building thermal envelope.

N1103.2.2 (R403.2.2) Sealing (Mandatory). Ducts, air handlers, and filter boxes shall be sealed. Joints and seams shall comply with Section M1601.4.1 of this code.

Exceptions:

1. Air impermeable spray foam products shall be permitted to be applied without additional joint seals.

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- 2. Where a duct connection is made that is partially inaccessible, three screws or rivers shall be equally spaced on the exposed portion of the joint so as to prevent a hinge effect.
- 3. Continuously welded and locking-type longitudinal joints and seams in ducts operating at static pressures less than 2 inches of water column (500 Pa) pressure classification shall not require additional closure systems.

Duct tightness shall be verified by either of the following:

- 1. Postconstruction test: Total leakage shall be less than or equal to 4 cfm (113.3 L/min) per 100 square feet (9.29 m²) of conditioned floor area when tested at a pressure differential of 0.1 inches wigh (25 Pa) pacross the entire system, including the manufacturer's air handler enclosure. All register boots shall be tapes or otherwise sealed during the test.
- 2. Rough-in test: Total leakage shall be less than or equal to 4 cfm (113.3 L/min) per 100 ft² (9.29 m²) of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure. All registers shall be taped or otherwise sealed during the test. If the air handler is not installed at the time of the test, total leakage shall be less than or equal to 3 cfm (85 L/min) per 100 square feet (9.29 m²) of conditioned floor area.

Exception: The total leakage test is not required for ducts and air handlers located entirely within the building thermal envelope.

N1103.2.2.1 (R403.2.2.1) Sealed air handler. Air handlers shall have a manufacturer's designation for an air leakage of no more than 2 percent of the design air flow rate when tested in accordance with ASHRAE 193.

N1103.2.3 (R403.2.3) Building cavities (Mandatory). Building framing cavities shall not be used as ducts or plenums.

N1103.3 (R403.3) Mechanical system piping insulation (Mandatory). Mechanical system piping capable of carrying fluids above 105°F (41°C) or below 55°F (13°C) shall be insulated to a minimum of R-3.

N1103.3.1 (R403.3.1) Protection of piping insulation. Piping insulation exposed to weather shall be protected from damage, including that caused by sunlight, moisture, equipment maintenance, and wind, and shall provide shielding from solar radiation that can cause degradation of the material. Adhesive tape shall not be permitted.

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